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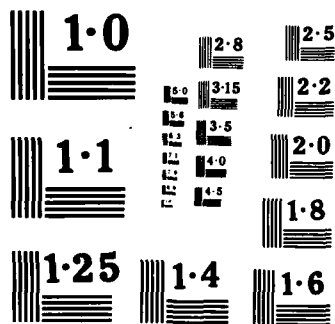
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Qs AND As ABOUT THE FUTURE OF THE THREE Rs:
A DEMOGRAPHER'S PERSPECTIVE

Kevin F. McCarthy

March 1984

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Qs AND As ABOUT THE FUTURE OF THE THREE Rs:
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Kevin F. McCarthy

March 1984

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I. INTRODUCTION¹

The 1980s are certain to confront the nation's educational systems with great challenges but equally great opportunities. Although some new criticism of the schools is heard virtually every day, and although polls show that public confidence in the nation's schools is at its lowest level in many years, polls also show that the public wants to reform the system and is prepared to pay for reform with increased taxes.

Meanwhile, however, the U.S. population has been undergoing a virtual demographic revolution during the last decade that will heavily affect both the schools and any reforms that are attempted. In many ways, California is in the forefront of that revolution.

This paper deals with six major trends in that revolution--what has already happened and what we can expect in the future--and examines some of the questions they will pose for the educational system. The six trends are:

- The transition toward zero population growth:
- The population's changing age structure:
- The changing makeup of families and households:
- The revolution in women's labor force participation:
- The new immigration:
- The new settlement patterns.

¹This paper is a revised version of the author's speech at the Third Annual Joint State and County Conference for Policy and Decision Makers on "Educational Futures." This conference was jointly sponsored by the Los Angeles County Superintendent of Schools and the California Department of Education and was held in Los Angeles in February 1984. The author would like to thank Rand colleagues Peter Morrison, Will Harriess, and Gwen Shepherdson for their assistance. The paper draws on research supported by Center Grant P50-HD12639 from The Center for Population Research, National Institute of Child Health and Human Development, DHHS.

II. THE TRANSITION TOWARD ZERO GROWTH

Despite talk of a new baby boom--or at least "boomlet"--the U.S. is actually moving toward zero population growth, which will be reached at some as yet uncertain date. Fig. 1 shows how population growth has varied since 1940, and displays the most recent Census Bureau projection for the future. The period of low growth during World War II was followed abruptly by the baby boom, which persisted from the late 1940s until the early 1960s. The baby boom was in turn followed by the baby bust of the late 1960s and early 1970s, and finally by the recent baby boomlet.

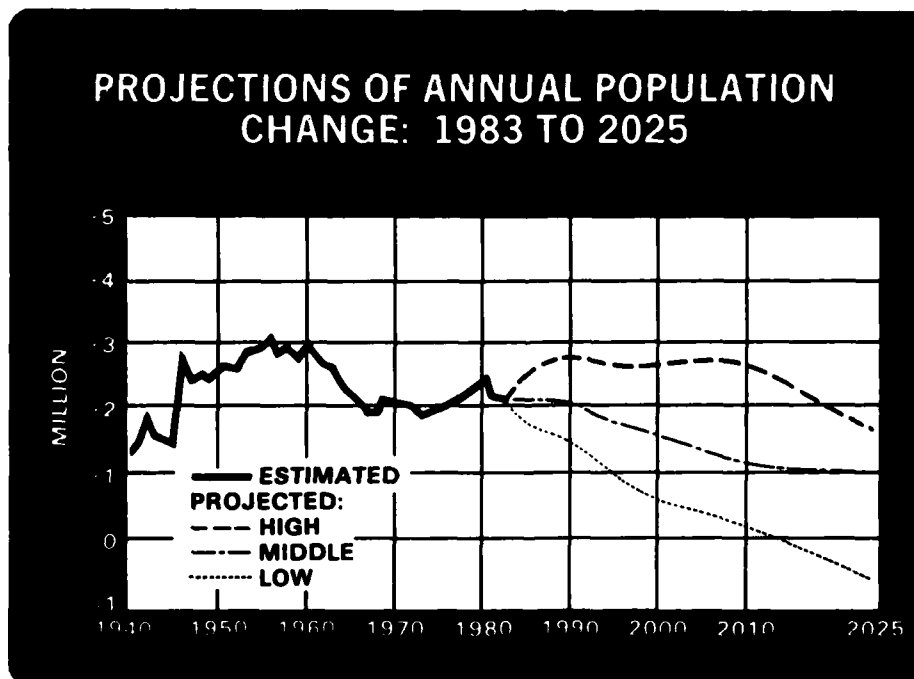


Fig. 1 -- Projections of annual population change: 1983 to 2025

The most recent Census projections in Fig. 1 reflect different assumptions about the three components of population growth: fertility, mortality, and immigration. Of the three, fertility is by far the most important and until recently has been the most volatile. In the low Census projection, population growth will slow immediately and reach zero around 2015. Under the medium-growth assumptions, growth will stay level until the end of the decade, go into a long, slow decline, and eventually reach zero around 2045. Only in the high-growth projection does the current boomlet accelerate--and even in that projection, growth starts to decline around 2010. As for which projection is the most likely: If we use past experience as a guide, future growth will probably take a course between the low and medium projections. Indeed, one reason that the Census issued these recent projections is that their last series proved to be too high.

The major reason for the variation in growth we have experienced over the last 40 years has been the fluctuation in fertility rates--that is, the average number of children that women bear. Figure 2 tracks the pattern of variation in fertility rates since 1930. The figure also shows the level of fertility required for the population to replace itself (about 2.1 children per woman). During the Depression, fertility levels reached historic lows, exceeded only by the recent baby bust. Following the war, fertility climbed to a peak of 3.7 children per woman in 1957. The baby bust began around 1964, and fertility rates dropped below the replacement level by 1973. Note that despite the recent rise in the number of births, fertility rates have remained below the replacement level. Clearly, then, the current increase in births is not a product of resurgent fertility rates; instead, it is a byproduct of something else.

That something else is a population age structure that is currently very favorable to high birth rates, as can be seen from Fig. 3. As a direct result of the baby boom, the number of women of childbearing age increased from 35 million in 1950 to almost 55 million women by 1980--yet the total number of births is still lower today than it was then. Thus, the current boomlet is more an echo of the baby boom period than it is a product of changing behavior or, more precisely, a return

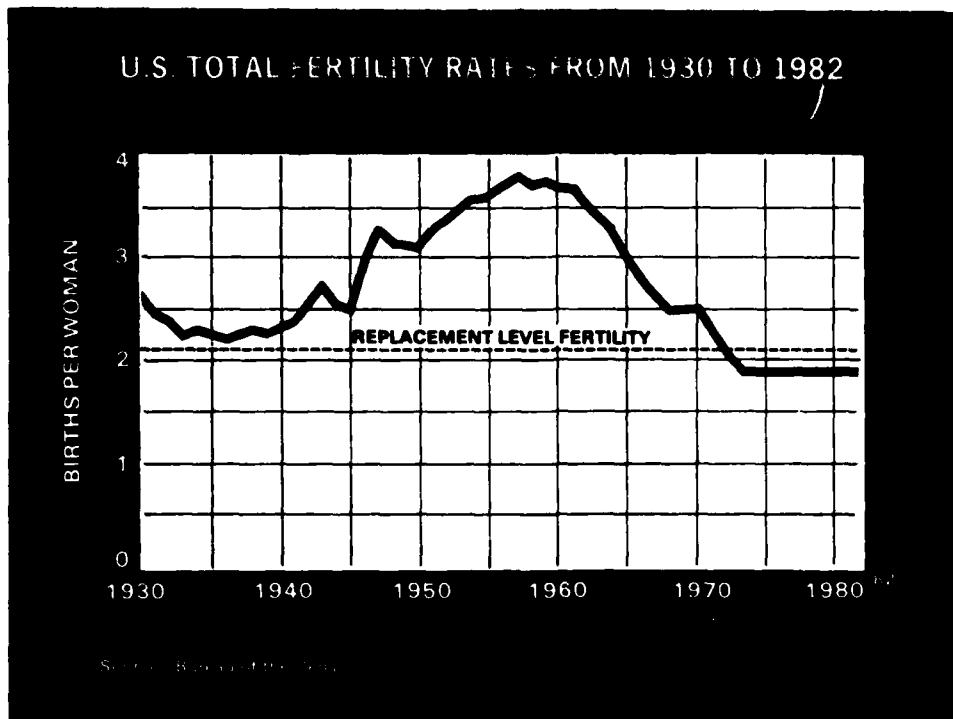


Fig. 2 -- U.S. total fertility rates from 1930 to 1982

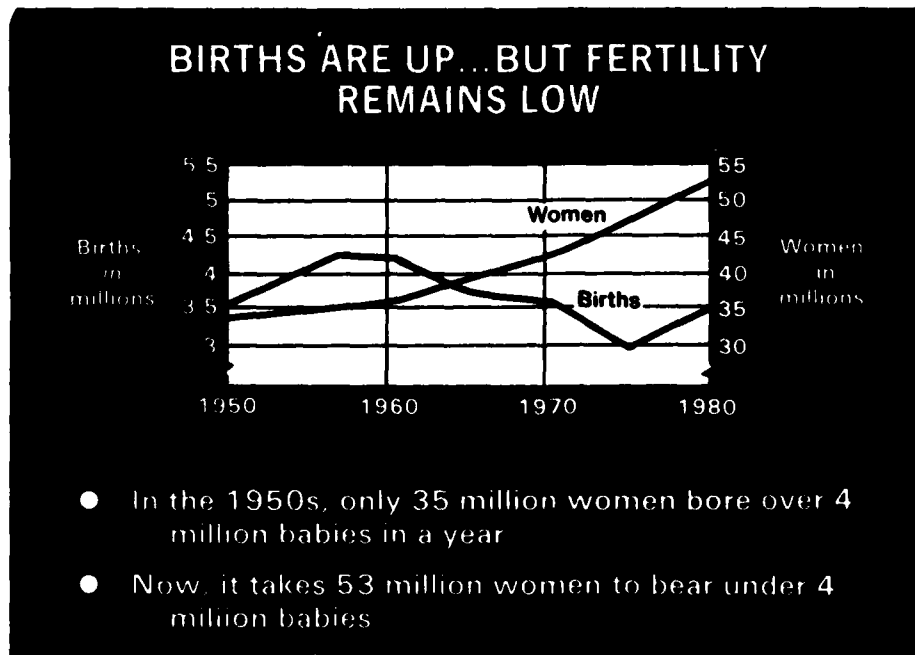


Fig. 3 -- Births are up..but fertility remains low

to the fertility behavior of that earlier period. Indeed, had fertility rates resumed a level even approximately like those of the baby boom, we would currently be experiencing a truly unprecedented rise in births.

Fertility rates have not resurged to their previously high levels for several reasons. First, and most obvious, married women are having fewer children--a pattern that accords with their fertility expectations. Second, women are marrying later. Delayed marriage reduces fertility in two ways: Women who marry later generally prefer fewer children; and even if they want large families, they are likely to fall short of their goals. Third, an increasing number of women are remaining childless, thus bringing down the average number of children per woman of childbearing age.

III. IMPLICATIONS OF SLOWER GROWTH

The implications of this transition to zero population growth can best be understood by looking at how it has altered the age structure of the population. Figure 4, for example, highlights three age groups. First, are the cohorts born during the depression, who produced the baby boom but are now well past childbearing age and are at the peak of their careers and earnings. Second are the baby boom cohorts themselves-- now well into their childbearing years and their early career stages. Last are the baby bust cohorts, who are now either entering or are about to enter elementary school, will be entering secondary and postsecondary schools within the next ten years, and shortly thereafter will enter the labor market and their childbearing years.

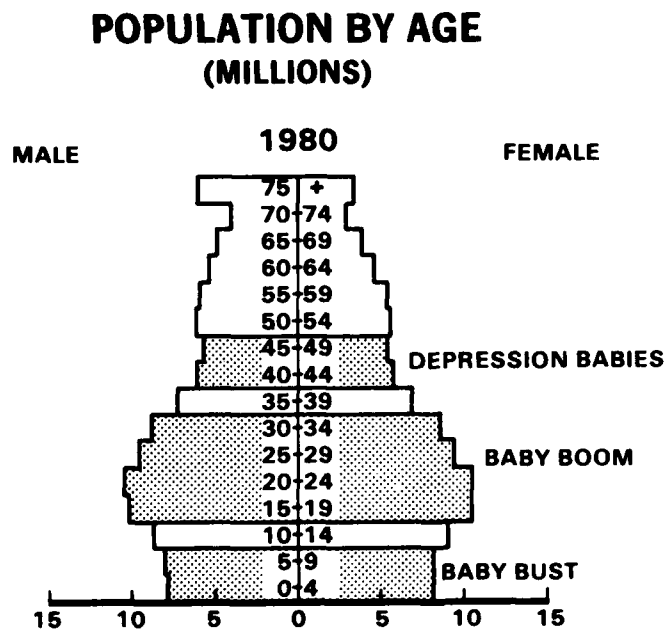


Fig. 4 -- Population by age: 1980

Demographically, this age structure is prescribing the transition to very slow future growth, since the very low fertility of the currently large childbearing cohorts means low birth rates in the future. Even if the next generation startled everyone by deciding to have considerably more children than their parents, they would still produce a smaller total number of children than their parents did, simply because they are so few in numbers.

Similar things will be going on in education. Although this age structure will produce an increase in school enrollments in the immediate future, the longer-term prospect is for decline. Figure 5 gives a clearer picture of the changes in enrollment we can expect, by showing the relationship between cohort size and enrollment over the past 30 years. Elementary school enrollment shows a steady decline from a peak in 1967 until 1985, when the baby boomlet cohorts are well into

**SCHOOL-AGE POPULATION AND ENROLLMENT IN
GRADES K-8 AND 9-12: 50 STATES AND D.C.,
1960 to 1990**

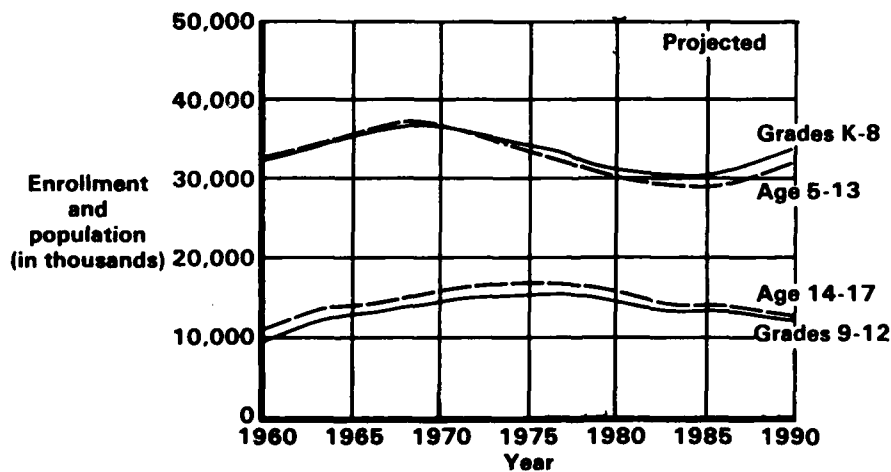


Fig. 5 -- School-age population and enrollment in grades K-8 and 9-12:
50 states and D.C., 1960 to 1990

elementary school. However, the subsequent upsurge in enrollment will peak in the early 1990s and then start a more profound decline. Secondary school enrollment shows a somewhat later decline, which will also persist somewhat longer, until the recently larger cohorts enter high schools in the mid-1990s.

Changes in the age structure also affect the labor market, of course. Figure 6 compares the sizes of cohorts in 1975, 1985, and 1995, for five different age groups:

- Those aged 16-24 who are new labor force entrants.
- Those aged 25-34 who are just establishing careers.



Fig. 6 -- The future labor force: More mature and productive

- Those aged 35-44 who are in mid-career.
- Those aged 45-54 who are in their peak earning years.
- Those aged 55 and over who are approaching retirement.

The significance of Fig. 6 lies in the relative sizes of these groups and the state of the economy in the various periods. In the mid-1970s the labor market was flooded with new labor force entrants (16-24) and early-career workers (25-34). These were the baby boom cohorts. Because of their youth and inexperience, they were not especially productive; as a result both average productivity gains and average real wage gains were low. Moreover, because there were so many of these workers in comparison with prior cohorts, their relative wages were also lower.

By contrast, the most productive segment of the labor force, those workers in their late 30s and 40s--the peak earning years--made up a smaller fraction of the total labor force. Finally, older workers in the mid-1970s constituted a larger share of all workers than they will in either 1985 or 1995. In sum, the demographic composition of the labor market was conducive to low productivity and lower earnings.

Now consider how that situation will change in the future. The absolute number of new entrants will decline. The number of early career workers will increase until 1985, as the last of the baby boom cohorts are establishing careers, but will decline substantially by 1995. The mid-career and peak-earning groups will expand considerably in both periods. Finally, the number of older workers will drop sharply.

What will all this mean? First, average earnings and productivity should increase, since a much higher fraction of the labor force will be in the peak earning and productivity stages. This could well mean higher tax revenues both for the schools and for other public services since earnings per capita should increase. It should also enlarge the pool of affluent households, who will want the best education for their children and be willing and able to pay for it--even if it means private schools.

As the number of new labor force entrants declines in both relative and absolute terms, a shortage of entry-level workers could develop that would bid up their wages (estimates vary from 20 percent by 1990 to 30 percent by 2000). This, in turn, might have two effects: First, and probably the most immediate, it could well lead to an increase in dropout rates as marginal students are lured away from school to take decent-paying jobs--albeit jobs that may have little real future. Second, it could encourage industry to expedite capital-intensive investment so as to save future labor costs, and to pressure the schools to develop curricula more suited to an even higher-tech environment.

Finally, there will be an important development at the top of the age structure--that is, the pressures exerted by an aging population (see Fig. 7). Contrary to what we often hear about Social Security and pension funds, the real pressures on those income sources will not occur until after 2010, when the baby boomers begin to reach retirement age. Instead, the immediate pressures of an aging of the population will be

THE PERCENTAGE OF OLDER PERSONS WILL INCREASE SHARPLY

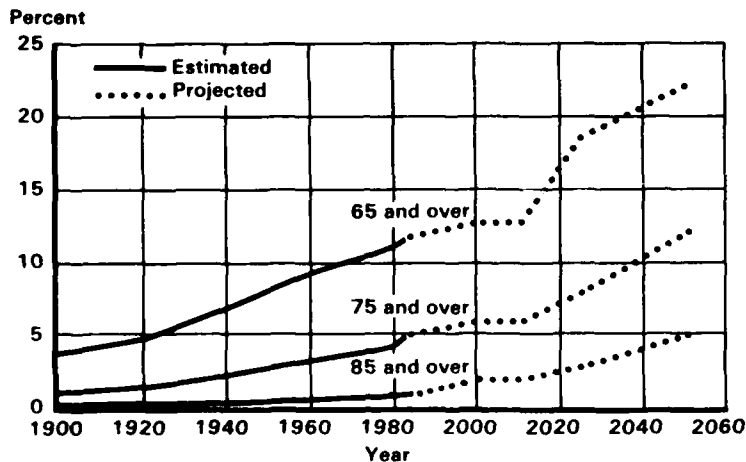


Fig. 7 -- The percentage of older persons will increase sharply

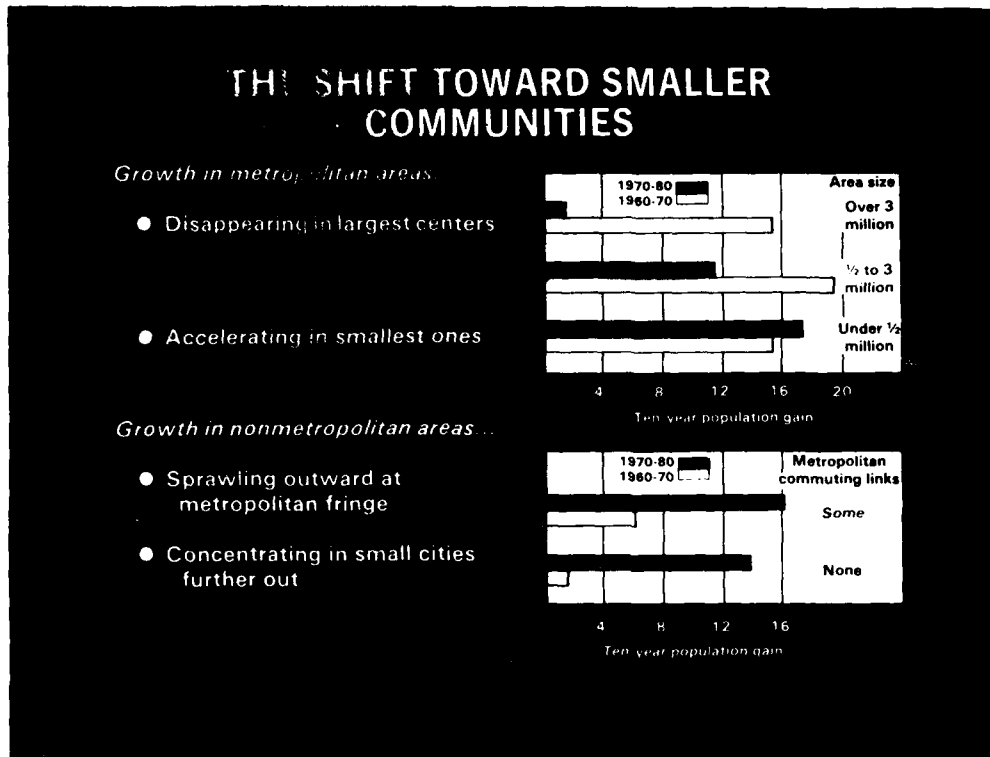


Fig. 16 -- The shift toward smaller communities

an inkling of what those problems can be like, we need only compare a school whose classrooms are crowded with both native-born and immigrant minority students in a district with a shriveling tax base, and a school in an affluent white district that is to be closed because of shriveling enrollment and its students to be transferred to another local school--which may still be underused. (And consider the vociferous protests in both districts.)

Moreover, the possibility of integrating large urban districts with a growing population of minority students may become infeasible given the shift of enrollment.

Finally, school districts as well as the state will be forced to confront the problems of evaluating the performance of schools and student bodies that are dramatically different.

VII. THE NEW SETTLEMENT PATTERNS

The final demographic trend to be considered here is the emergence of new settlement patterns or, more precisely, new migration patterns among the American population. As the rate of natural population increase slows, migration becomes all the more important, since the process of population growth begins to resemble a zero-sum game in which growth in one area often comes at the expense of another.

The basic movement is toward smaller communities, with varying effects on places of origin and destination, as can be seen in Fig. 16. For example, growth has disappeared in many of the largest metropolitan areas--both city and suburbs alike--and has accelerated in smaller metropolitan centers, particularly those under 250,000 population. More generally, migration has reversed its traditional "country-to-city" direction--the pattern that urbanized America--and has begun to flow back into nonmetropolitan areas. This reversal takes several forms: First, population growth is spilling over the borders of metropolitan areas and into the surrounding nonmetropolitan territory; second, there has been a resurgence of growth in small towns and cities in the nonmetropolitan sector; finally, many of the fastest growing areas during the 1970s were remote and rural.

In addition to metering the pace of growth or decline, migration also shapes the character of population change by selectively choosing the more affluent, younger, and better-educated members of the population. As a result, recent migration patterns are not only slowing growth in major metropolitan centers, but are also altering the economic fortunes of various areas by leaving behind, in the largest counties, population groups who are most in need of services but are also least able to afford them.

School administrators will feel these effects in a variety of ways. For example, many smaller districts will experience growth pressures while many of the larger districts are losing students. This will complicate the problems of distributing state funds, since decline and growth confront districts with very different kinds of problems. To get

pressures of rapid population growth combined with slow economic growth. This conflict will guarantee a growing pool of potential immigrants who seek entry to the U.S. Second, political instability in such sending areas as Central America will push increasing numbers of refugees toward our borders, and our involvement in the political affairs of those countries may make us more inclined to accept their pleas for asylum. Finally, even were we to attempt to stem the flow of immigrants, a host of political, economic, and even strategic interests might limit our ability to do so. Indeed, the growing trade, communication, and transportation links we have developed with sending countries over the past twenty years have contributed substantially to the current flows.

The immediate consequences of this new immigration will be a student body increasingly composed of immigrants and their offspring. Important questions will arise: What curricula and techniques are best suited to this changing student population? Should bilingual education be used, for which groups, and at what costs? How are schools to meet the needs of special immigrant groups (e.g., refugees) who may need a host of special services? Which of those needs should be handled by other agencies? Should the schools be responsible for educating adult immigrants by teaching English as a Second Language, vocational training, or even basic socialization--and who should pay for those services? At the turn of the century, the schools were asked to assume the task of helping new immigrants to adapt to U.S. society; they may be asked to do so again. Finally, and this is a key point, if the recent push for educational reform continues and involves (as seems likely) some "objective" performance measures, how are we to compare student performance in districts with a heavy concentration of immigrants with those consisting almost exclusively of middle-class Anglos?

IMMIGRANTS ARE GEOGRAPHICALLY CONCENTRATED

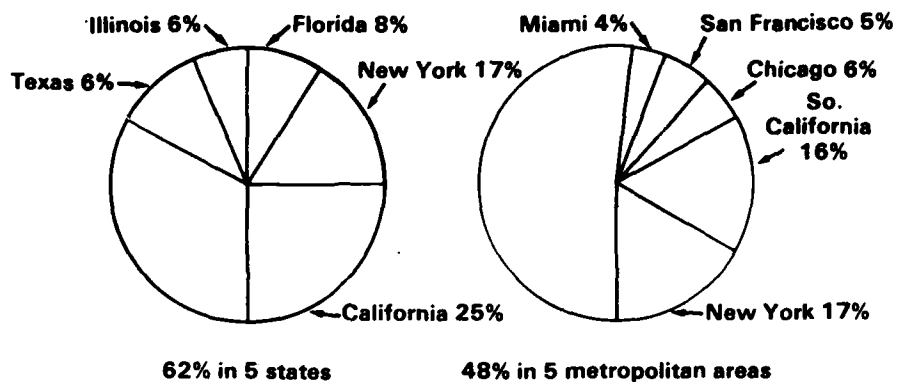


Fig. 14 -- Immigrants are geographically concentrated

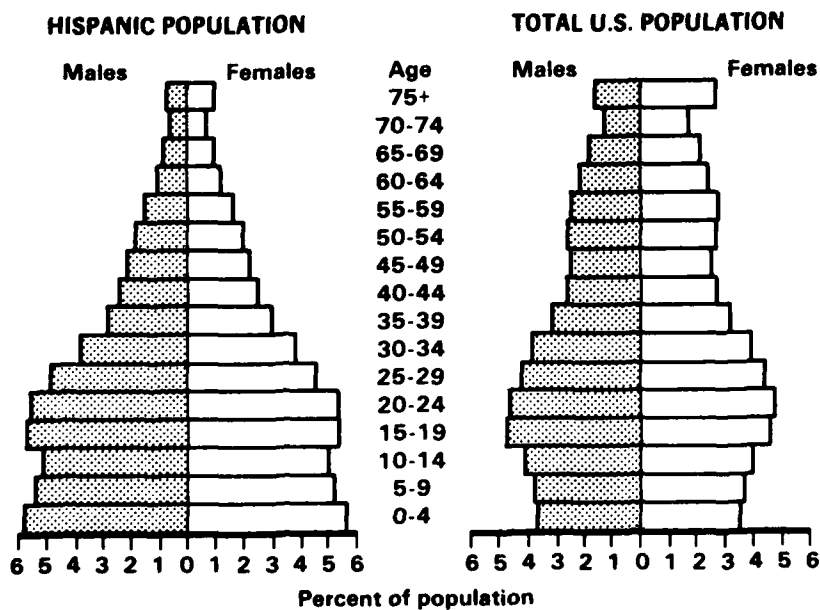


Fig. 15 -- Hispanics are a young population

before 1965, when the last major revision of the Immigration and Nationality Act was passed, with the prior period. First, the total number of legal immigrants admitted for entry into the country has increased substantially. For example, during the peak period of immigration--1900 to 1910--approximately 880,000 immigrants entered the country. Subsequently, the numbers dropped off sharply. Since 1970, however, almost 400,000 legal immigrants have entered the country annually; and if we add the illegals (conservatively estimated as 300,000 per year) the total begins to approach 800,000 per year--almost as many as entered during the great waves at the turn of the century. Second, the national origins of the recent immigrants differ markedly. Prior to 1970, most immigrants came from Europe; since 1970, a majority have come from Asia, Central America, and South America. Indeed, almost 80 percent of the most recent cohorts (those who entered after 1980) have originated in those areas.

The impact of the "new immigration" will not be felt equally across the country because immigrants concentrate very heavily in certain areas. For example, about 62 percent of the legal immigrants in the country have settled in 5 states (see Fig. 14) and 25 percent have settled in California. Similarly, almost 50 percent are located in only 5 metropolitan areas--the most attractive of which is Los Angeles.

Compounding the effect that the new immigration will have on the schools is the much younger age structure of many of the "new immigrant" groups. Figure 15, for example, compares the age structure of the total U.S. and Hispanic populations. The much younger age profile of Hispanics--produced by both immigration and higher fertility rates--will have a pronounced effect on the schools in those areas in which immigrants settle. During the last 10 years, for example, enrollment in Los Angeles city schools has shifted from majority Anglo to majority Hispanic.

Although legislation is currently pending in Congress to regulate the flow of immigrants into the country more strictly, we can expect the pressures of the new immigration to continue even if the current bill (the Simpson-Mazzoli bill) should pass. First, the nations that currently send us the majority of our immigrants face the conflicting

VI. THE NEW IMMIGRATION

Another demographic change that may loom large in the coming decade is the rise of the "new immigration." This phenomenon is particularly striking in California, where over 30 percent of the nation's immigrants are settling, and account for about half of the state's growth. Indeed, only immigration saved Los Angeles and San Francisco from experiencing the population decline that affected metropolitan areas in the Northeast and Midwest during the 1970s. They gained almost 600,000 residents during the 1970s; without immigration, they would have lost over 400,000--a net difference of 1 million residents.

The most important dimensions of the new immigration are pictured in Fig. 13, which shows the volume and national origins of immigration into this country since 1820, when immigration records were first collected. Two major changes are obvious when we compare the patterns

IMMIGRANTS BY CONTINENT: 1820 TO 1979

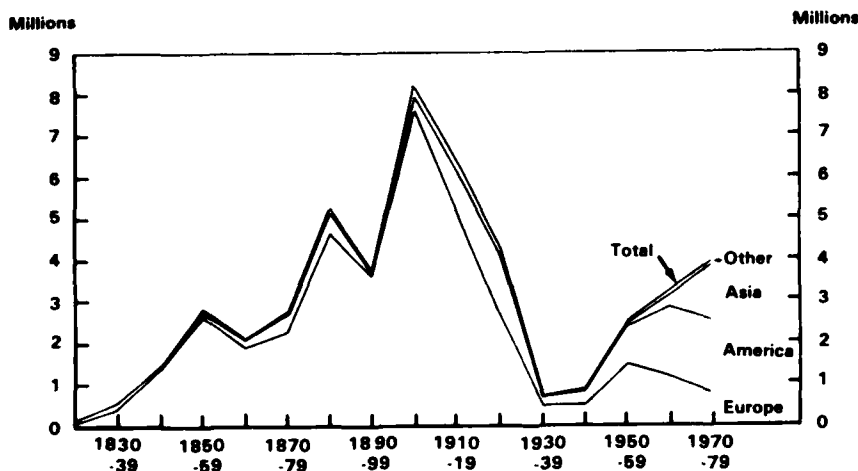


Fig. 13 -- Immigrants by continent: 1820 to 1979

As the schools confront declining enrollments, and if local school boards and governments find more and more underused publicly financed facilities on their hands, these groups may find it both profitable and socially desirable to expand the traditional range of school services by providing care for preschool children (perhaps along the lines of Headstart but for a fee) and extending the schoolday so that it coincides with the workday. Moreover, such a program might win the combined support of businesses (for whom it would be cheaper to subsidize a school program than to provide childcare directly for their employees), of parents (who would certainly be willing to pay a share of the costs for adequate care), and even of ordinary taxpayers (who might otherwise bear the full cost of maintaining an underused capital plant).

Such services could certainly help solve the problems of declining school enrollments. They might also forestall a possible flight from the public schools by the children of affluent two-worker families who fear that the public schools cannot provide a safe and suitable after-school environment for their young children. Indeed, providing after-school services to the children of working parents on a fee-for-service basis might enable schools to expand the range of nonessential activities they can offer--services that have often been curtailed in an era of reduced funding and emphasis on a no-frills curriculum.

Finally, the emergence of the two-worker family may impose yet another sort of demand on the school system as professional parents press for special classes and curricula. If the schools respond by offering additional services on a fee-for-service basis, this would certainly raise serious equity questions as to the fairness of charging for services that less affluent parents might want but cannot afford.

MOST CHILDREN NOW HAVE WORKING MOTHERS

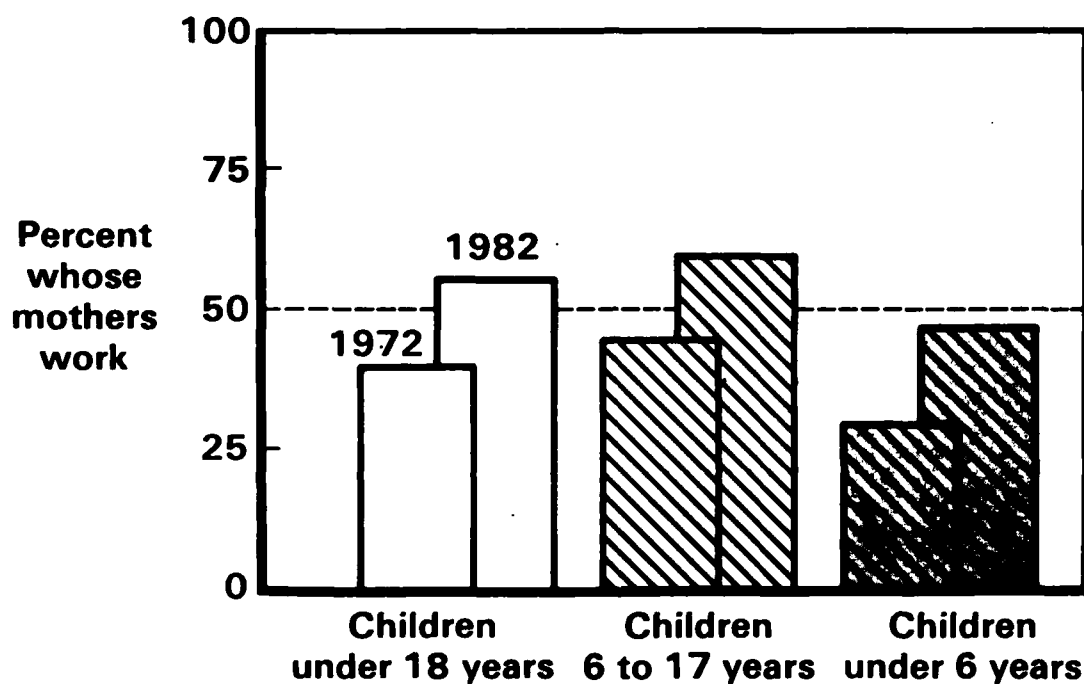


Fig. 12 -- Most children now have working mothers

children under 5 use some form of institutional childcare arrangement. This fact no doubt reflects the higher cost of such arrangements, the apparent ability of parents to make other arrangements, and the fact that neither women's wages nor the market has adjusted to this new reality. Whatever the reason, however, there is likely to be a growing need for childcare arrangements. This need will be felt both by working mothers in intact families who may be able to afford first-rate professional care, and even more by the increasing number of single and divorced mothers who must work but cannot afford high-priced care.

This trend has continued among the most recent cohorts, who have very high initial participation rates (close to 70 percent) and show no evidence of withdrawing from the labor market during childbearing as the earlier cohorts did. Note, for example, that the labor force rates actually increase between ages 20-24 and 25-34, the peak childbearing period.

Figure 11 shows this pattern even more clearly. Note that the increase in labor force participation occurred first among all women, followed by married women, and finally, women with children at home. Over 50 percent of all mothers are now in the labor market--a percentage only slightly below that of all women. This change in behavior has reached even to mothers with very young children (Fig. 12). For example, close to 50 percent of the mothers with children under 6, the classic pre-school child, are now in the labor market.

Obviously, childcare will become an even more crucial issue than it is already. Currently, only about 20 percent of working mothers with

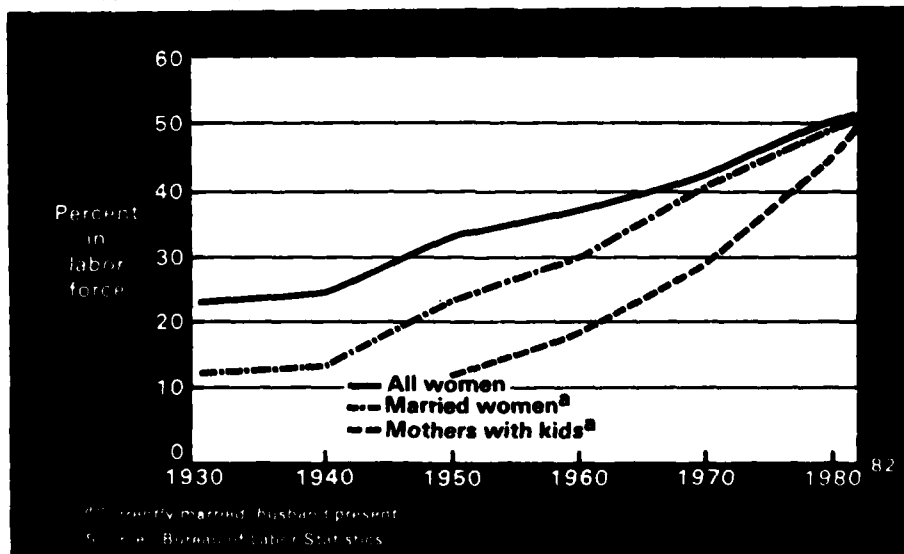
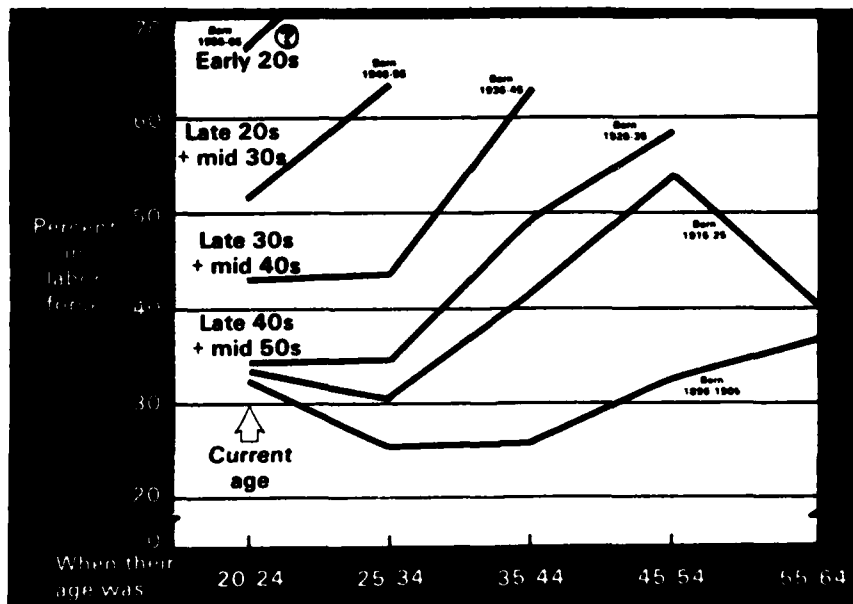


Fig. 11 -- The labor force trend: Enter wives and mothers

V. THE REVOLUTION IN WOMEN'S LABOR-FORCE PARTICIPATION

Further complicating these changing family patterns has been the revolution, over the last 20 years, in women's labor-force participation. Figure 10 illustrates how the profile of their participation has changed across generations, beginning with the cohort of women born between 1895 and 1905, the survivors of whom are now in their 80s. About one-third of these women worked before marriage and childbearing, and then left the labor force to have children; only a small percentage of them returned to work after their children were older or had left home. In each succeeding cohort, a higher percentage worked before marriage and childbearing, they remained out of the labor force for less time during the childbearing period, and a higher percentage went back to work after their children had entered school.



Source: Linda J. Waite, *U.S. Women at Work*, The Rand Corporation, R-2824-RC, 1981, Figure 2.

Fig. 10 -- Working lives of women: Changes across generations

THREE PREDOMINANT TYPES OF FUTURE FAMILIES

1. FIRST-MARRIAGE FAMILY
 - Formed after interval of separate living or cohabitation
 - Both spouses employed
 - Children: 1 or 2, eventually; or none
2. ONE-PARENT FAMILY
 - Formed by marital breakup or out-of-wedlock birth
 - Often temporary
 - Economically disadvantaged
3. "BLENDED" FAMILY
 - Formed by remarriage
 - Relationships and loyalties complex
 - Obligations and authority ambiguous

Fig. 9 -- Three predominant types of future families

consisting of married couples with children are increasingly likely to be "blended families" formed by remarriage, with various combinations of natural parents, step-parents, and step-children, conflicting loyalties, and complex childrearing obligations.

Emotional, psychological, and simply logistical problems may result, which children bring with them when they come to school. That makes things awkward for the schools, whose duties have expanded far beyond instruction into the realms of psychotherapy, character formation, crime and punishment, and babysitting--all of which they are expected to handle effectively whether their constituency is dwindling or not. In short, the schools are called upon to transform the hickory stick into a magic wand. The now dominant two-worker family, for example, may have--even expect--that the schools will provide supervised childcare during the workday, perhaps by matching the schoolday to the workday. As a final note on that subject, it will probably become harder than ever to get such parents to become active members of the PTA.

It is useful to separate households into the two major types: family households, whose members are related, and nonfamily households. This distinction helps us realize that smaller households are not simply shrunken versions of larger ones. Note, for example, that the traditional household--a married couple with children--is the only one of the five major household types to have declined in relative numbers. Moreover, despite an increase in delayed childbearing and childlessness, couples without children have only managed to hold their own in relative numbers.

On the other hand, single-parent families, which include divorced and separated parents as well as single mothers who have never married, are accounting for an increasing fraction of all households. That phenomenon reflects two trends: the high rates of divorce and separation in today's society, and a much higher incidence of unwed mothers, particularly among minority women.

Nonfamily households are increasing in numbers far faster than family households. The fastest growth has occurred among single persons living alone--mostly elderly widows and young men who have left their parental home. Finally, although they are still only a small percentage of all households, couples living together before marriage have been proliferating rapidly.

These trends, especially the rise in nonfamily households, are altering the traditional home environment and reducing the basic constituency for educational issues--the intact married couple with children--into a distinct minority. This may mean less political and economic support for educational initiatives.

Figure 9 reveals that not only are the numbers of family households changing, but also their character. Consider what has been happening with family formation in our culture. Married couples today are more likely to have lived alone or to have lived together before marriage; such experience colors their attitudes toward both childrearing and acceptable life-styles. Furthermore, both spouses are far more likely to be working and thus to have less time for childrearing than their parents did. One-parent families are also proliferating, as the divorce rate climbs and out-of-wedlock births increase. Finally, families

IV. FAMILY AND HOUSEHOLD CHANGES

Major changes are also occurring in the way Americans are forming and reforming families and households, and we can expect them to continue in the coming decade. First, household size is currently at an all-time low and we can expect it to continue to shrink for the rest of the century. Second, the kinds of households that are increasing most rapidly are distinctly untraditional. Currently, average household size is 2.7 persons, down from 3.1 in 1970; and that average is expected to drop to 2.3 persons by 1995. Of course, averages often conceal more than they reveal; we can gain a better appreciation of these numbers by looking more closely at the types of changes in household structure we can expect over the next two decades, as in Fig. 8.

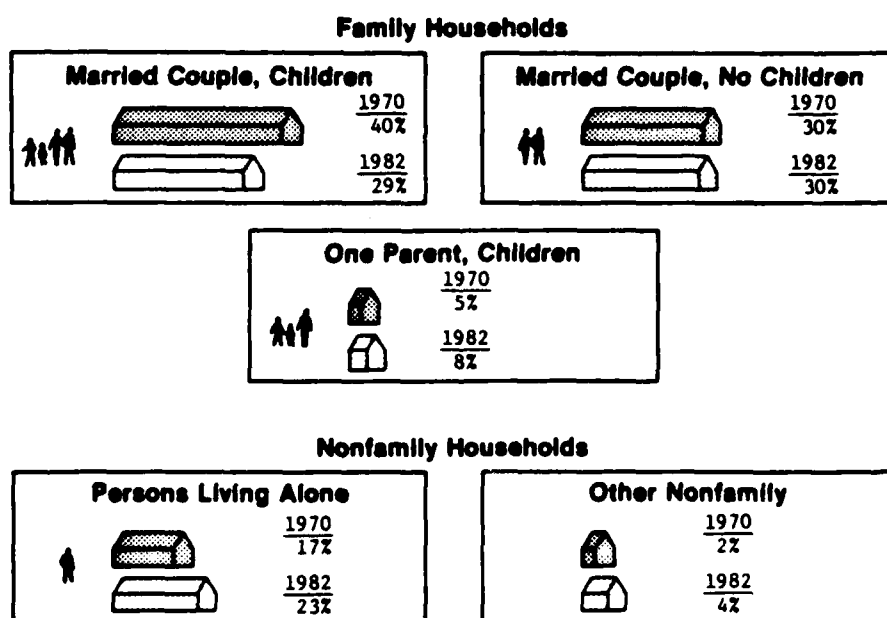


Fig. 8 -- U.S. household living arrangements are changing rapidly

manifested by a marked increase in the over-75 and over-85 population-- cohorts who are very heavy users of medical services. Although they make up only 11 percent of the population, people over 65 consume 31 percent of all medical dollars. For the educational system, the effects of this aging will be mostly indirect, arising from the increasing pressures that health expenditures will exert on public sector budgets. In other words, the educational system is likely to confront increasing competition for public support.

Besides the perennial problems that the educational system has always had to deal with, it is therefore apparent that demographic trends will confront the system with an array of brand new ones. There are hopeful signs that the public does not really expect the schools to produce a magic wand with which to solve these problems. The solutions, and thus the shape of much of the state's future, will require the collaboration of the schools, state and local government, parents, and taxpayers--and, as ever, pupils with pencils in their hands.

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